



IUID and Readiness Reporting

Aligning Maintenance to Readiness



**USFF, N43
13 January 2011**



How does MFOM Help

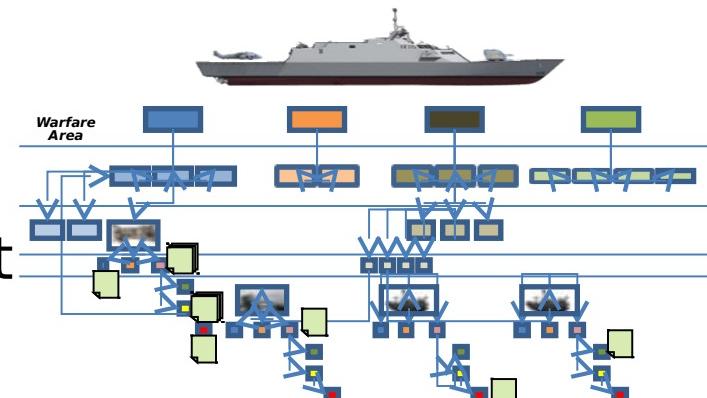
MFOM 2.0 Provides 3 Significant Tools

- ***Material Readiness Reporting Tool (FRP)***
 - *MFOM calculates and reports a percentage of readiness for shipboard equipment and systems based on the documented material condition*
 - *MFOM uses standard material reporting tools*
- ***Screening Value for Maintenance Actions (Lifecycle)***
 - *MFOM provides each maintenance action a numerical value based on the Equipment Operating Capability (EOC) and system impact*
 - *This allows for the prioritization of maintenance actions based on their contribution to material readiness*
- ***Material Readiness - Resources Tool (Cost)***
 - *MFOM identifies the funding required to reach a certain level of material readiness based on the documented material condition*



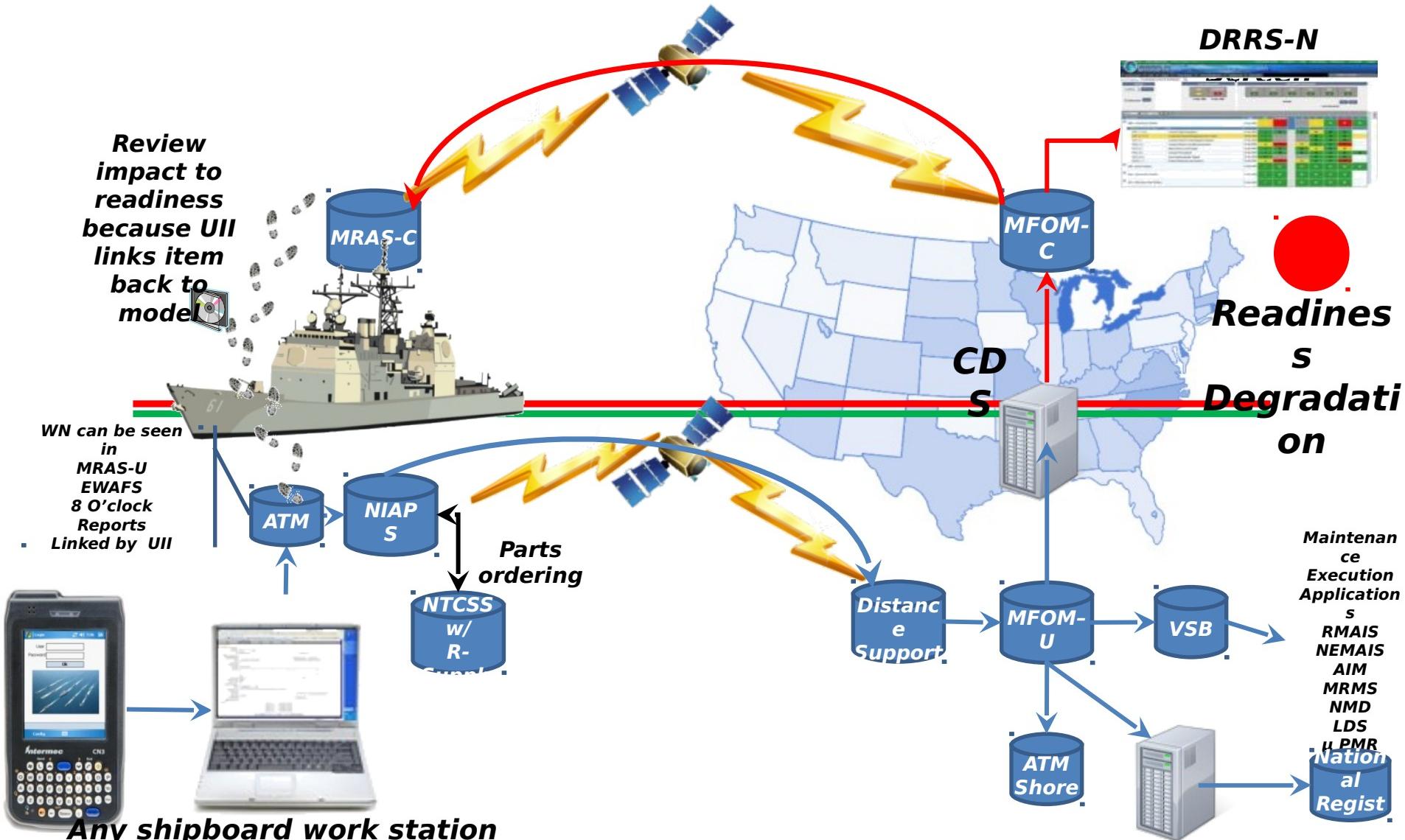
Readiness Reporting

- Readiness starts at the deck plate
 - Properly identifying maintenance issues
 - Right equipment
 - Right problem
 - Properly classifying deficiencies
 - How broke is it
- Must have
 - A unique identifier (IUID)
 - Information system support
 - Suitable models
 - Models correctly relate equipment to readiness area
 - Correct algorithms
 - Algorithm certified to meet stringent standards



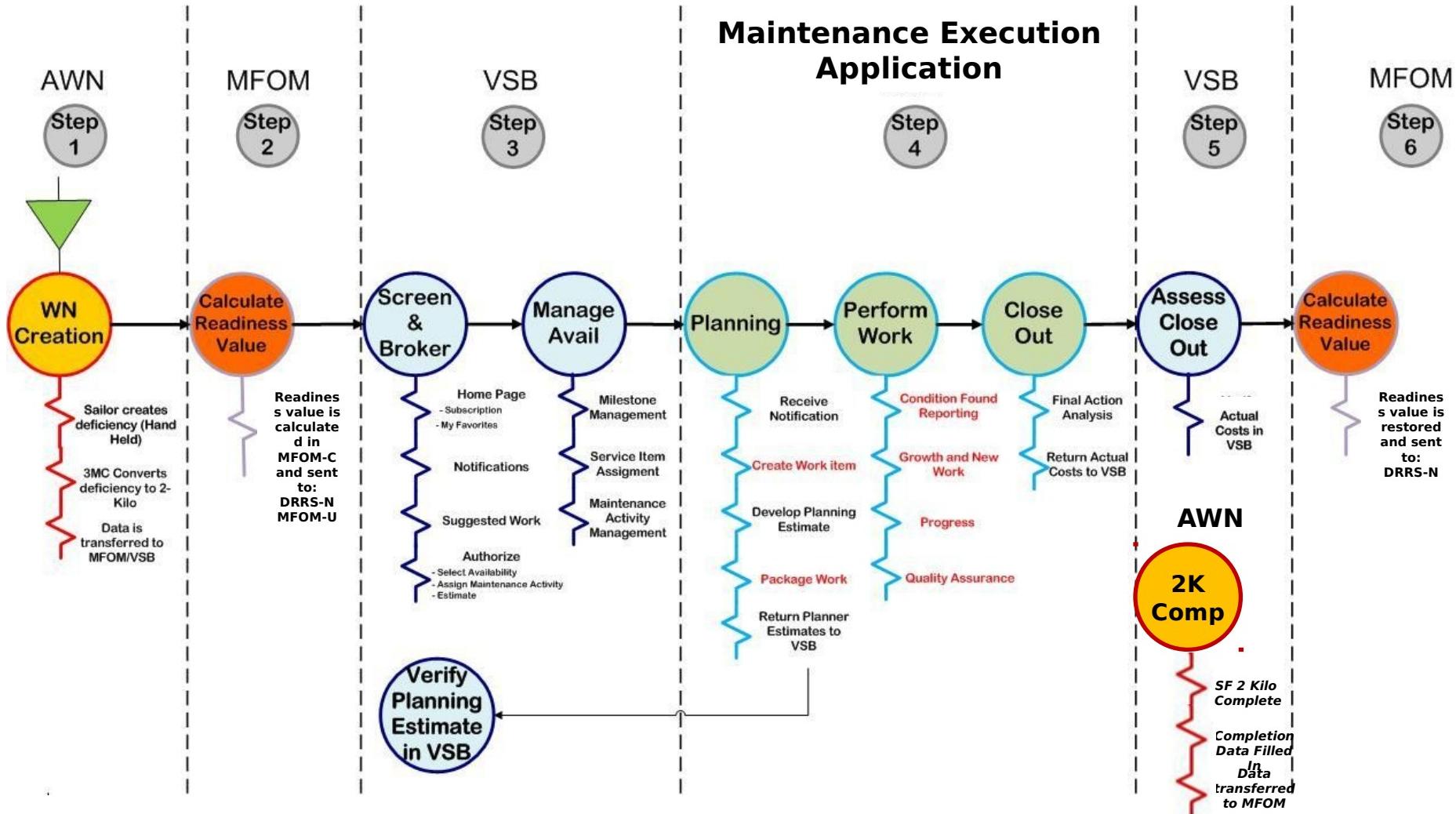


IUID In The Process





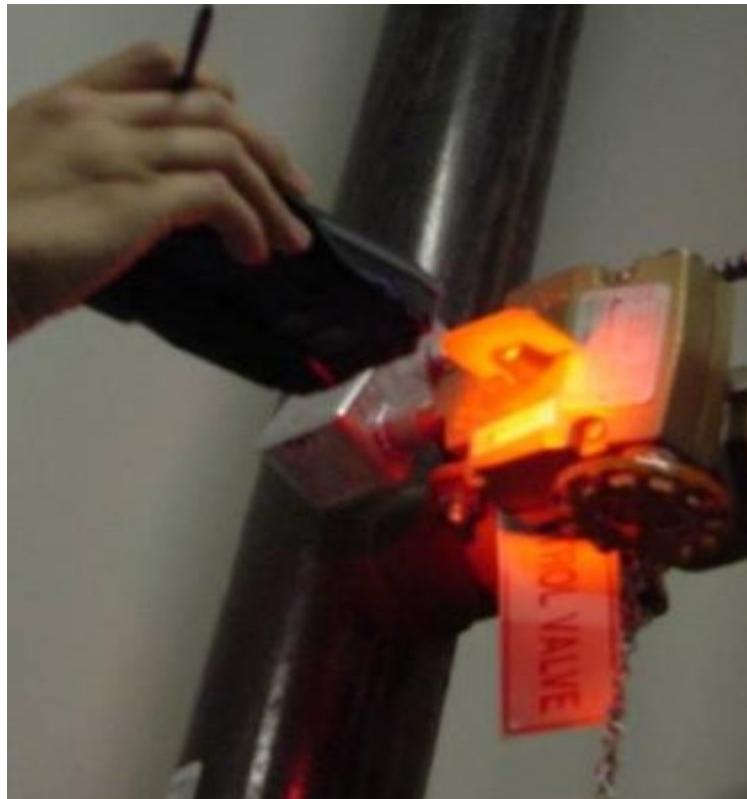
Basic Process



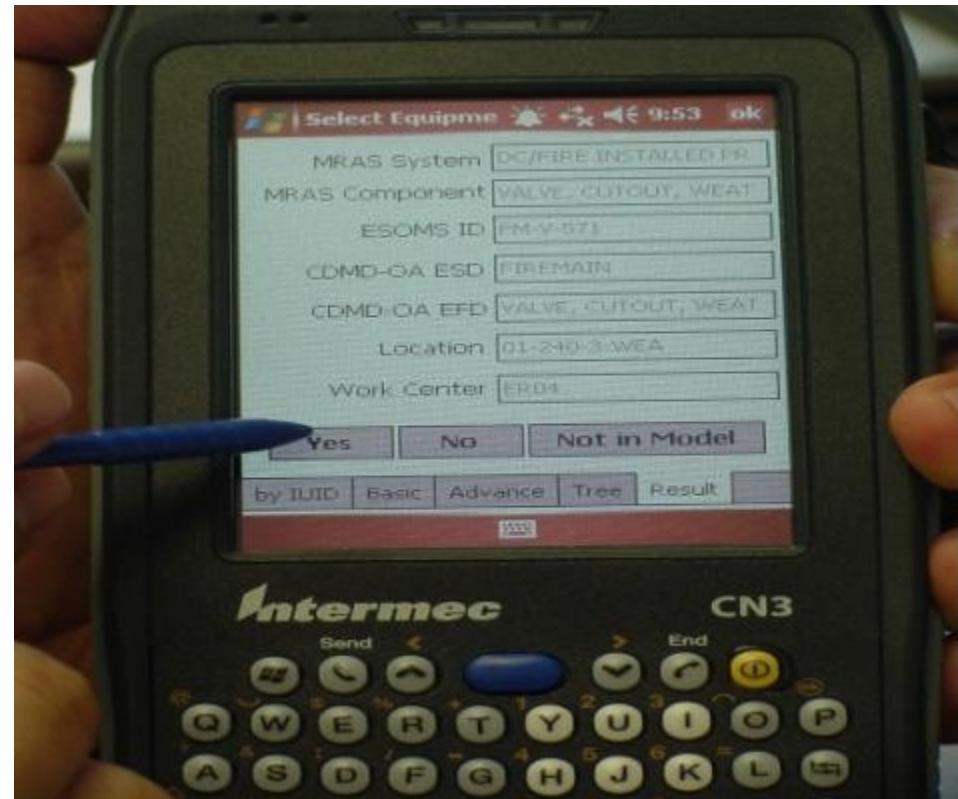


Handheld Use

Maintainer Scans Item using handheld scanner

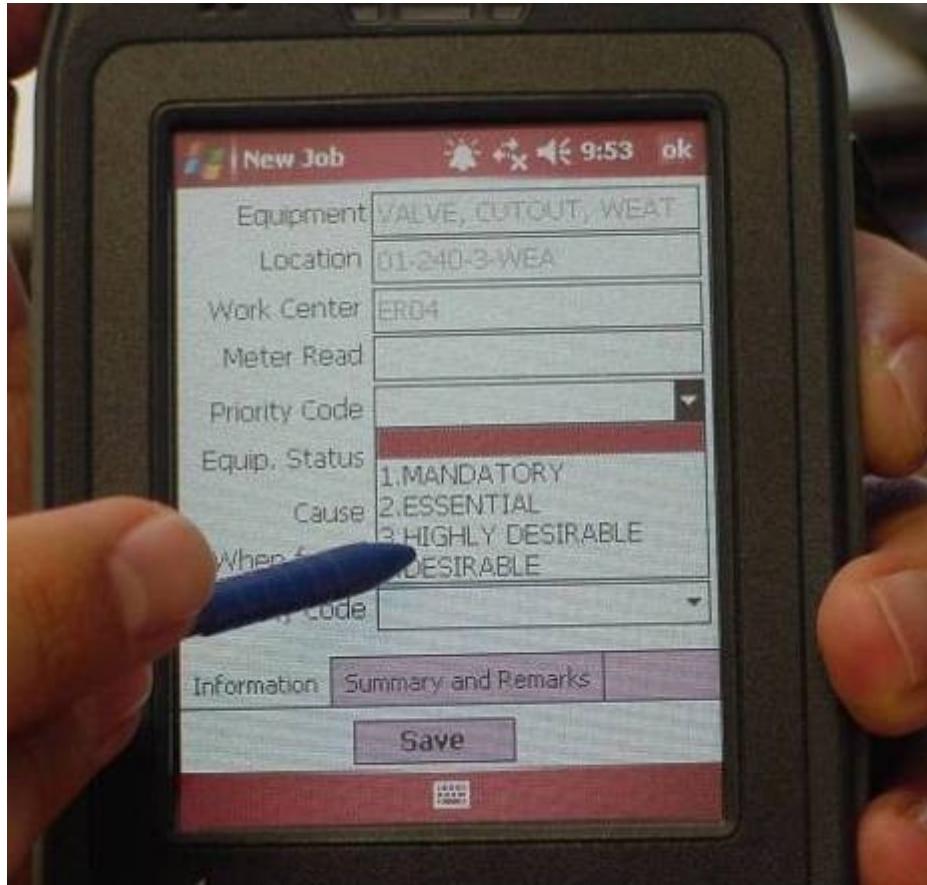


IUID links item to Model and Equipment Information





Handheld Job Creation



Creating Job

The Sailor only needs to fill in 8 fields:

- **6 drop down menus**
- **Summary and Remarks**

Then saves and uploads the work candidate for review



Operational Performance Value Definition

Totally Inoperative: 0.0 - Object does not work at all.

Should not be operated/Battle Short: 0.1 - Object not functioning. Secure or turn off immediately. Further operation would be a threat to personnel safety.

Repair before operation: 0.2 - Object not functioning within designed parameters and may only be operated under emergency conditions. May be threat to personnel safety.

Severely degraded with major operational restrictions: 0.3 - Object not operating correctly or performing intended functions. Not a threat to personnel safety but further equipment damage may occur with continued operation.

Restricted operation. Significant discrepancies: 0.4 - Object not operating correctly and no means or alternatives allow the object to do everything it was designed to perform.

Operable with discrepancies that affect performance. No restrictions on degradation: 0.5 - Object is capable of performing intended functions, but not to all designed performance standards, or not capable of performing required functions in all operating modes.

Fully operable: 1.0 - Object appears to be in very good material condition, it has no evidence of corrosion or noticeable discrepancies. Notification created only for preventive maintenance actions or ordering parts.

Fully operable with cosmetic discrepancies: 0.9 - Object works with only cosmetic discrepancies, has slight corrosion. The documented discrepancy does not affect performance, there are no anticipated problems or a need for troubleshooting.

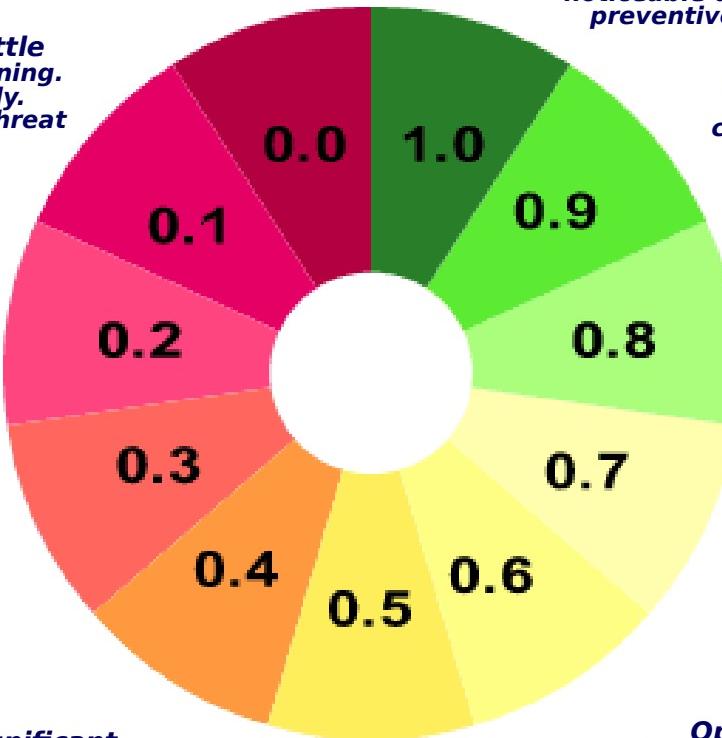
Fully operable with no performance impacting discrepancies: 0.8 - Object works with no loss in performance but has minor discrepancies or minimal corrosion. Problems are anticipated or troubleshooting is necessary. Minor redundancy impacted with no effect on performance.

Operable with minor discrepancies that do not impact performance: 0.7 - Object works with no loss in performance but has significant discrepancies that need to be corrected or monitored. One of many modes may be inoperative. Minor corrosion.

Operable with discrepancies that could potentially impact performance in the future. No restrictions: 0.6

- Object works with no current loss in performance but performance degradation is anticipated.

Significant discrepancies need to be corrected or troubleshooting initiated to prevent performance degradation. Corrosion could impact performance if not corrected.



ATM Interface



The CN3 is docked and the file is uploaded to AWN for CoC update and review

A screenshot of the AFLOAT Toolbox for Maintenance interface. The title bar reads "AFLOAT Toolbox for Maintenance". Below the title, there is a navigation menu with links: "Toolbox", "User Login Passwords", "User Administration", "Application Administration", and "Log Out - LEEKER". A dropdown menu for "Automated Work Notification" is open. The main area features a grid of application icons:

| AWN | MRAS | EDFS |
|------------|----------|------------------|
| MRAS CLASS | CASREP | MFOM |
| Reports | Training | Handheld Updates |
| Support | eSOMS | SKED |
| TMLS | EDL/ESL | R-Admin |
| CDMD-OA | VSB | R-Supply |

The interface has a red header bar and a red footer bar with the text "GO NAVY!".

Drawer Opens and Application Launches



Work Notification

Search My Work Centers
 First Previous Next Last 80 of 122 Search Fields EIC HSC RIC RIN
 B101000 311222 66A070002 00FYD

| Work Notification | | Comments | Parts Data | Completion Data |
|---------------------|---|----------|------------|-----------------|
| Job Status: | 2 KILO | | | |
| JCN: | 20126EA012228 | | | |
| Equipment: | DIESEL ENGINE | | | |
| When Discovered: | 2 - NORMAL OPERATION | | | |
| Cause: | 7 - NORMAL WEAR AND TEAR | | | |
| EOC Values: | 0.7 | | | |
| Meter Reading: | | | | |
| Summary: | #2SSDG LOW BOOST PRESSURE | | | |
| Problem: | CONDITIONS FOUND FROM LCS-1 MACHINERY RELIABILITY DAILY STATUS SUMMARY REPORT INDICATE BOOST PRESSURE LOW. RIGHT SIDE BOOST IS LOWER THAN LEFT SIDE BOOST. INADEQUATE BOOST AIR WILL CAUSE ELEVATION IN EXHAUST GAS TEMPERATURES. | | | |
| Recommendation: | REQUEST MAINTENANCE CONTRACT PROVIDER TO TROUBLESHOOT LOW RIGHT SIDE BOOST PRESSURE, CHECK FILTER FOR REPLACEMENT AND TURBO CHARGER FOR CLEANING. SUBMIT CFR WITH | | | |
| Rate/First Contact: | E-8 GEREAU | | | |
| Originator: | LENHEKE, J | | | |
| Work Center: | EA01 | | | |
| Assist Work Center: | | | | |
| Assist UIC: | | | | |
| Priority: | 4 - DESIRABLE | | | |
| Deferral Reason: | 6 - LACK OF FACILITIES/CAPABILITIES | | | |
| Safety Code: | | | | |
| Key Event: | | | | |
| Type Avail: | 1 - DEPOT | | | |
| SF MHRS EXP: | 2 | | | |
| CASREP: | <input checked="" type="checkbox"/> | | | |
| Equipment Status: | 1 - OPERATIONAL | | | |
| Date Discovered: | 7/30/2010 1:34:42 PM | | | |
| Avail ID: | | | | |
| Second Contact: | LCDR BARROWS | | | |
| Service Flag: | 0 - Condition Based Maintenance | | | |
| Deadline Date: | | | | |
| SF MHRS REM: | | | | |

CASREP:

Standard 2K format - IUID link improves tracking of equipment from cradle to grave

Can Export to CASREP - IUID links CASREP to maintenance work notification



Comments

The screenshot shows the AWN Jobs software interface. At the top, there's a banner with the US Navy seal, the text "Automated Work Notification", "Product of MODCOM", and "USS GRIDLEY (Active) | Log Out KIP.FULTON". Below the banner is a navigation bar with links for Home, Create New, View / Edit, Functions, Reports, Help, and Admin. A search bar labeled "Search My Work Centers" is present, along with buttons for First, Previous, Next, Last, and a page number indicator "80 of 122". To the right of the search bar is a table with columns EIC, HSC, RIC, and RIH, containing the values B101000|311222|66A070002|00FYD. The main content area displays several sections of comments:

- Ship's Force:** "FOUND DURING MAINTENANCE REQUIRES PART TO REPAIR". Buttons: Zoom, Add.
- Maintenance Team:** Buttons: Zoom, Add.
- GDSC:** Buttons: Zoom, Add.
- TYCOM:** Buttons: Zoom, Add.
- Tech Authority:** Buttons: Zoom, Add.
- Supply:** "PART ORDERED W-005 PROVIDED BY USS SAN ANTONIO". Buttons: Zoom, Add.
- U-NNPI:** Buttons: Zoom, Add.

A "Save" button is located at the bottom of the comment sections.

**Captures
maintenance
dialogue**

**Improves
maintenance
history**



Part Ordering

Search My Work Centers
First Previous Next Last 80 of 122

| EIC | HSC | RIC | RIN |
|---------|--------|-----------|-------|
| B101000 | 311222 | 66A070002 | 00FYD |

Work Notification Comments Parts Data Completion Data

Order Parts

Work Center EA01 JCN 20126EA012228
APL 66A070002 Equipment Name DIESEL ENGINE

The number of items displayed is 10

| | NIIN | Item Name | COSAL Type | Unit of Issue | Unit Price | Part Number | CAGE | COG |
|-------------------------------------|-----------|---------------------|------------|---------------|------------|--------------|-------|-----|
| <input checked="" type="checkbox"/> | 000137784 | PACKING, PREFORMED | H | EA | | D3114620A | A0106 | |
| <input type="checkbox"/> | 001727223 | O-RING | H | EA | | D3114650A | A0106 | |
| <input type="checkbox"/> | 009896263 | BELT-COG | H | EA | | 65356F01 | A0106 | |
| <input type="checkbox"/> | 012451414 | O-RING | H | EA | | 60275F01 | A0106 | |
| <input type="checkbox"/> | 013538397 | SLEEVE,NOZZLE HOLDE | H | EA | 24.17 | 68096F01 | A0106 | 9B |
| <input type="checkbox"/> | 013641653 | BEARING,ROLLER,NEED | H | EA | | 760557637U01 | A0106 | |
| <input type="checkbox"/> | 013641662 | SWITCH,GOV PICK-UP | H | EA | | 75508F91 | A0106 | |
| <input type="checkbox"/> | 013652547 | SEAL RING,METAL | H | EA | 58.34 | 79010F01 | A0106 | 9B |
| <input type="checkbox"/> | 013734694 | GASKET | H | EA | | 79012F01 | A0106 | |
| <input type="checkbox"/> | 013734871 | GASKET | H | EA | | 70542F01 | A0106 | |

1 2 3 4 5 6 7 8 9 10 ...

Able to order COSAL and Non-COSAL parts to support maintenance history and costs



Maintenance Planning

Maintenance Planning Tool USS GRIDLEY

Calendars Maintenance Tasks Events Zone Inspection Out of Commission Administration

FULTON.TESTER logged in as Coordinator

Unscheduled Tasks

Search Unscheduled Tasks... JCN ▲

| Title | Task ID |
|--------------------------------|---------------|
| Test Event One | |
| Test Key Event One | 23151CF020377 |
| Test Milestone Two | |
| TEST 01 | 23151EA010615 |
| OIL FILTERS NEED TO BE CHANGED | AAA |
| TEST MPT 01 | 23151EA010725 |
| TEST | 23151OT010178 |

Mar 26, 2011 >

December January February

| Date | Event | Description | Task ID |
|------|-------|----------------------------|---------|
| 27 | NN10 | TRANSDUCER DAMAGE | CA01 |
| 28 | SS10 | AIR CONDITIONING PLANT NO2 | EA01 |
| 29 | | #2SSDG LOW BOOST PRESSURE | FA01 |
| 30 | | | |
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| 4 | | | |

TEST NIM ON DEMO SITE
ER0

BBB
SS02

Page 1 of 1 | Repaint Screen | Print to PDF | Clear Selections | Disable Popups | Legend | Filters, Dates, & Details

1 - 11 of 11

Links to the Maintenance Planning Tool (MPT) in support of unit maintenance scheduling



Rollup Calculations

Index
=

$$\frac{[(\text{Min EOC}_c \text{ LVL 7}) \times ((\text{Wt LVL 7}) + (\text{Sum WEOC LVL 7}) - (\text{WELOC LVL7}))]}{(\text{Sum Weights in LVL 7})}$$

| L7 | Wt | EOC |
|--|-----|-----|
| Lube and Scavenge Pump | 1 | 1 |
| VALVE, CUTOUT, OUTLET, PRESS GAGE, GTRB NO 1A | 0.2 | 1 |
| VALVE, CUTOUT, SAMPLE CONNECTION, GTRB 1A | 0.2 | 1 |
| LUBE OIL COOLER | 1 | 1 |
| Lube Oil Filter DP Transducer | 0.3 | 1 |
| VALVE, CUTOUT, SUPPLY, LUBO, GAS TURBINE NO 1A | 0.6 | 0 |
| SWITCH, CONTROL | 0.2 | 1 |
| VALVE, CUTOUT, SCAVENGE BLANK OFF CONNECTION | 0.2 | 1 |
| VALVE, CUTOUT, VENT, DEHUMIDIFIER, RED GEAR NO 1 | 0.2 | 1 |
| Air Oil Separator | 1 | 1 |
| VALVE, CUTOUT, SUPPLY BLANK OFF CONN, GTRB 1A | 0.2 | 1 |

Index ~~0.4~~ $\times \frac{(0.6 + 1 \times 1 + 1 \times 0.2 + 1 \times 0.2 + 1 \times 1 + 1 \times 0.3 + 1 \times 0.2 + 1 \times 0.2 + 1 \times 0.2 + 1 \times 1 + 1 \times 0.2)}$

$$= \frac{(1 + 0.2 + 0.2 + 1 + 0.3 + 0.6 + 0.2 + 0.2 + 0.2 + 1 + 0.2)}$$

Level 6

→ **Lube Oil System, Index = 0.4**

Level 7

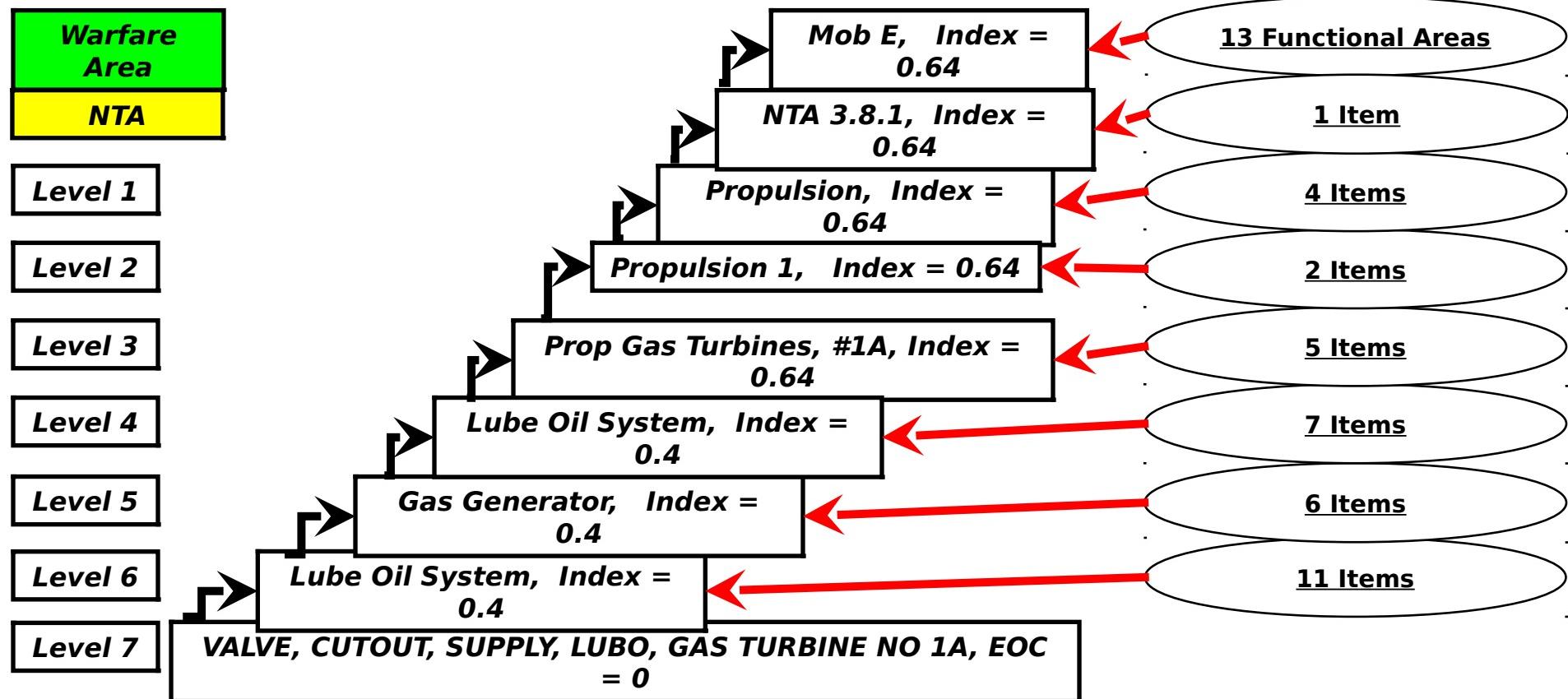
VALVE, CUTOUT, SUPPLY, LUBO, GAS TURBINE NO 1A, EOC = 0



Rollup Calculations

Index
=

$$\frac{[(\text{Min EOC}_c \text{ LVL 1}) \times ((\text{Wt LVL 1}) + (\text{Sum WEOC LVL 1}) - (\text{WEOC LVL1}))]}{(\text{Sum Weights in LVL 1})}$$





Material Condition Readiness

MFOOM version 8.0
SHIP MODEL UPDATE NEWS
SECURITY LEVEL UNCLASSIFIED

MY PROFILE | HELP DESK | ABOUT | UTILITIES | SEARCH | LOGOUT | ADMINISTRATOR SCREEN 214246

Maintenance Team Tools > Current Status MFOOM's Availability | Screen Work | Availability Impact | Finance

FRP Readiness

Hull: **LCS 1 USS FREEDOM** Scenario: **Deployment**

Employment: **01/01/2008** Model Date: **10/18/2005** Data Update: **03/29/2007** Data Processed: **687,752**

Display Availability Timeline **Display Events Timeline**

| Warfare Area | MOB | AAW | AMW | ASU | BMD | C2W | CCC | ASW | INT | FSO | NCO | MW | STW |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Threshold | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.79 |
| Current Status | 0.59 | 0.60 | 0.68 | 0.60 | 0.60 | 0.62 | 0.60 | 0.60 | 0.61 | 0.60 | 0.60 | 0.60 | 0.60 |

HULL's

| | |
|------|--------------|
| 0.80 | Threshold |
| 0.68 | MFOOM |

Minimal Level Recommended Max

Condition Based Maint **Engineered Maint Plans** **Modernization** **Services** **CASREP** **ALL**

ALL MOB AAW AMW ASU BMD C2W CCC ASW INT FSO NCO MW STW

Total Distinct Items: 559

Scrub

Scenario based material condition readiness

Work candidates impacting this mission

Work Candidates

| ANL | INT | PWS | AAW | AMW | ASU | BMD | C2W | CCC | FSO | NCO | MW | STW | AVAIL. | REPAIR ACTIVITY | REC. | INFO | BLD | BLR | |
|-----|-----|------|----------|-----|--------------------------------|-----|-----|-----|-----|-----|----|-----|--------|-----------------|------|-------|-------|-----|--|
| A0U | 168 | 0.81 | SM028441 | 0.8 | | | | | | | | | A123 | | N | 0 | ■ ■ | | |
| A0U | 163 | 0.88 | SM028439 | 0.8 | REMOVE AND REPLACE C DAMP | | | | | | | | A123 | | N | 11.04 | ■ ■ | | |
| A0U | 167 | 0.71 | SM028512 | 0.8 | PROVISE WAREHOUSE | | | | | | | | A123 | | N | 41.01 | ■ ■ | | |
| A0U | 164 | 1.0 | CF020037 | 0.8 | TVO LCD MONITOR FAILURE | | | | | | | | | | N | 52.00 | ■ ■ | | |
| A0U | 168 | 0.67 | CM020228 | 0.8 | BMZ-M2 DAY/N | | | | | | | | | | N | 01.18 | ■ ■ | | |
| A0U | 138 | 0.88 | SM028383 | 0.8 | CORRODED DRIP PAN | | | | | | | | | | N | 15.00 | ■ ■ | | |
| A0U | 42 | 0.82 | SM028438 | 0.8 | HORN/LIN METER OUT OF CAL | | | | | | | | | | N | 18.24 | ■ ■ | | |
| A0U | 28 | 0.88 | CM020078 | 0.8 | NIGHT VISION HAS BROKEN KNOB | | | | | | | | | | N | 01.13 | ■ ■ | | |
| A0U | 118 | 0.87 | OT020072 | 0.8 | MCB-DIG CUT-OUT FAULT | | | | | | | | | | N | 01.26 | ■ ■ | | |
| A0U | 42 | 0.87 | CM020107 | 0.8 | BMZ-POWER SUPPLY IN MCP | | | | | | | | | | N | 04.47 | ■ ■ | | |
| A0U | 42 | 0.87 | CM020207 | 0.8 | FUSES | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 43 | 0.87 | CM020108 | 0.8 | DAMAGED DELUXE HOSE | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 43 | 0.87 | CM020108 | 0.8 | DAMAGED DELUXE HOSE | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 43 | 0.87 | CM020107 | 0.8 | DAMAGED DELUXE HOSE | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 44 | 0.87 | CM020108 | 0.8 | BMZ-POWER SUPPLY IN MCP | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 71 | 0.87 | CM020214 | 0.8 | TRANSFORMERS | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 138 | 0.87 | CM020222 | 0.8 | DAMAGED VDS CABLE ASSEMBLY | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 138 | 0.87 | CM020102 | 0.8 | DAMAGED DELUXE HOSE | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 141 | 0.87 | CM020228 | 0.8 | DAMAGED TRANSISTOR | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 144 | 0.87 | CM020230 | 0.8 | TRANSFORMERS | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 128 | 0.87 | CM020224 | 0.8 | MA PERFORM7211 R-18 | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 148 | 0.87 | CM020227 | 0.8 | MA PERFORM7211 R-28 | | | | | | | | | | | N | 04.47 | ■ ■ | |
| A0U | 121 | 0.88 | CM018380 | 0.8 | PUMP CALIBRATION REQUIRED | | | | | | | | | | | N | 08.54 | ■ ■ | |
| A0U | 124 | 0.88 | SM018152 | 0.8 | POST DEPLOYMENT INSPECTION | | | | | | | | | | | N | 08.54 | ■ ■ | |
| A0U | 123 | 0.88 | SM018251 | 0.8 | CALIBRATION REQUIRED FOR GAGES | | | | | | | | | | | N | 08.51 | ■ ■ | |
| A0U | 128 | 0.88 | SM041811 | 0.8 | STRIPPED VALUE STEM | | | | | | | | | | | N | 08.47 | ■ ■ | |
| A0U | 1 | 0.94 | CB020224 | 0.8 | | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 1 | 0.94 | CB020225 | 0.8 | NO COMMS ON EMC RADIO | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 1 | 0.94 | CB010004 | 0.8 | NO COMMS ON EMC RADIO | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 1 | 0.94 | CB020222 | 0.8 | NO COMMS ON EMC RADIO | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 1 | 0.94 | CB010007 | 0.8 | LOSS OF COMMS ON EMC RADIO | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 1 | 0.94 | CB010008 | 0.8 | NO COMMS ON EMC RADIO | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 1 | 0.94 | CB020223 | 0.8 | NO COMMS ON EMC RADIO | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 1 | 0.94 | CB010008 | 0.8 | NO COMMS ON EMC RADIO | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 1 | 0.94 | CB010011 | 0.8 | NO COMMS ON EMC RADIO | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 98 | 0.94 | CM018249 | 0.8 | FAULTY DISCRETE OUTPUT CARD | | | | | | | | | | | N | 08.53 | ■ ■ | |
| A0U | 138 | 0.95 | CB010036 | 0.8 | FAULTY SYNTHESIZER ON RDM 2 | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 6 | 0.94 | CB010012 | 0.8 | MISSING RED LIGHT AND PLACARD | | | | | | | | | | | N | 01.47 | ■ ■ | |
| A0U | 125 | 0.97 | SM020354 | 0.8 | CORROSION CONTROL REQUIRED | | | | | | | | | | | N | 08.00 | ■ ■ | |
| A0U | 45 | 0.97 | SM020384 | 0.8 | CORROSION CONTROL DOOR 3.26.2 | | | | | | | | | | | N | 02.04 | ■ ■ | |
| A0U | 120 | 0.90 | CR020086 | 0.8 | XSTAR-10 POWER FAILURE | | | | | | | | | | | N | 02.24 | ■ ■ | |
| A0U | 74 | 0.98 | CB010004 | 0.8 | BIT TEST FAILURE ON USC-58 | | | | | | | | | | | N | 02.34 | ■ ■ | |

Material Condition Readiness

The screenshot shows the MFOFM (Maintenance Force Maintenance) software interface. At the top, it displays the Department of the Navy seal, the title "MFOFM version 8.2", "SHIP MODEL UPDATE NEWS", "SECURITY LEVEL UNCLASSIFIED", and "RIGHT MAINTENANCE. RIGHT TIME. RIGHT COST.". Below the header, there are links for "MY PROFILE", "HELP DESK", "ABOUT", "UTILITIES", "SEARCH", "LOGOUT", and "ADMINISTRATOR SCREEN". A status bar at the bottom indicates "Current Status MFOFM 8 | Availability | Screen Work | Availability Impact | Financial".

FRP Readiness

Hull: LCS 1 USS FREEDOM Scenario: Deployment

Employment: 01/01/2008 Model Date: 10/18/2005 Data Update: 03/29/2007 Data Processed: 687752

Buttons: Display Availability Timeline, Display Events Timeline.

| Warfare Area | MOB | AAW | AMW | ASU | BMD | C2W | CCC | ASW | INT | FSO | NCO | MW | STW |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Threshold | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.79 |
| Current Status | 0.59 | 0.60 | 0.60 | 0.60 | 0.60 | 0.62 | 0.60 | 0.58 | 0.61 | 0.60 | 0.60 | 0.60 | 0.60 |
| Projected | 0.81 | 0.83 | 0.81 | 0.81 | 0.82 | 0.86 | 0.83 | 0.83 | 0.81 | 0.81 | 0.81 | 0.81 | 0.83 |

HULL's

| | |
|------|-----------------|
| 0.80 | Threshold |
| 0.80 | MFOFM |
| 0.82 | Projected MFOFM |

18 Total Man Days
16.7 K\$ Total Cost

Checkboxes: Minimal Level, Recommended, Help.

Buttons: Condition Based Maint, Engineered Maint Plans, Modernization, Services, CASREP, ALL.

- New Readiness Values indicated after repairs are made.
- Software indicates which items should be repaired to support the next mission.

| WAR | LINKED | MOB | AAW | AMW | ASU | BMD | C2W | CCC | ASW | INT | FSO | NCO | MW | STW | AVAIL | REPAIR ACTIVITY | REC | mFOFM | REC | |
|-----|--------|------|----------|-----|--------------------------------|-----|-----|-----|-----|-----|-----|-----|----|-----|-------|-----------------|-------|-------|-----|--|
| ASU | 166 | 0.81 | EM020441 | 0.8 | | | | | | | | | | | A123 | Y | 8 | | | |
| ASU | 163 | 0.86 | EM020438 | 0.8 | REMOVE AND REPLACE C SUMP | | | | | | | | | | A123 | Y | 11.04 | | | |
| ASU | 167 | 0.78 | PE04QH12 | 0.8 | PROVIDE WAREHOUSE | | | | | | | | | | A123 | Y | 41.10 | | | |
| ASU | 184 | 1.0 | CF028267 | 0.8 | TWO YDDS MONITOR FAILURE | | | | | | | | | | | N | 52.58 | | | |
| ASU | 185 | 0.87 | CM020326 | 0.8 | BAD MO DRIVE | | | | | | | | | | | | Y | 61.19 | | |
| ASU | 136 | 0.88 | EM020343 | 0.8 | CORRODED Drip PAN | | | | | | | | | | | | Y | 75.90 | | |
| ASU | 62 | 0.92 | EM020426 | 0.8 | HCPM FLOW METERS OUT OF CAL | | | | | | | | | | | | Y | 79.24 | | |
| ASU | 20 | 0.80 | CG030076 | 0.8 | NIGHT VISION HAS BROKEN JOHO | | | | | | | | | | | | Y | 81.13 | | |
| ASU | 118 | 0.81 | OT028072 | 0.8 | MOVE DOC CUT-OUT SWITCH | | | | | | | | | | | | Y | 82.25 | | |
| ASU | 42 | 0.87 | CM020157 | 0.8 | BAD POWER SUPPLY IN MCP | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 42 | 0.87 | CM020207 | 0.8 | FUSES | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 43 | 0.87 | CM020195 | 0.8 | DAMAGED DELUGE HOSE | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 43 | 0.87 | CM020196 | 0.8 | DAMAGED DELUGE HOSE | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 43 | 0.87 | CM020197 | 0.8 | DAMAGED DELUGE HOSE | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 44 | 0.87 | CM020168 | 0.8 | BAD POWER SUPPLY IN MCP | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 71 | 0.87 | CM020234 | 0.8 | TRANSFORMERS | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 135 | 0.87 | CM020222 | 0.8 | DAMAGED WTB CABLE ASSEMBLY | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 135 | 0.87 | CM020192 | 0.8 | DAMAGED DELUGE HOSE | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 141 | 0.87 | CM020228 | 0.0 | DAMAGED T3 AND T4 ON A3 | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 144 | 0.87 | CM020233 | 0.0 | TRANSFORMERS | | | | | | | | | | | | Y | 84.47 | | |
| ASU | 139 | 0.97 | CM020224 | 0.8 | IMA PERFORM 7211 R-26 | | | | | | | | | | | N | 84.47 | | | |
| ASU | 140 | 0.97 | CM020227 | 0.8 | IMA PERFORM 7211 R-26 | | | | | | | | | | | N | 84.47 | | | |
| ASU | 121 | 0.93 | EM010350 | 0.6 | PUMP CALIBRATION REQUIRED | | | | | | | | | | | | Y | 85.54 | | |
| ASU | 124 | 0.93 | EM010352 | 0.8 | POST DEPLOYMENT INSPECTION | | | | | | | | | | | | Y | 85.54 | | |
| ASU | 123 | 0.94 | EM010351 | 0.6 | CALIBRATION REQUIRED FOR GAGES | | | | | | | | | | | | N | 86.51 | | |
| ASU | 126 | 0.96 | EM040181 | 0.0 | STRIPPED VALVE STEM | | | | | | | | | | | | N | 89.47 | | |
| ASU | 1 | 0.94 | CI020324 | 0.0 | | | | | | | | | | | | | N | 89.66 | | |
| ASU | 1 | 0.94 | CI020325 | 0.0 | NO COMMS ON SWCS RADIO | | | | | | | | | | | | N | 89.66 | | |
| ASU | 1 | 0.94 | CSE10006 | 0.0 | NO COMMS ON SWCS RADIO | | | | | | | | | | | | N | 89.66 | | |
| ASU | 1 | 0.94 | CI020322 | 0.0 | NO COMMS ON SWCS RADIO | | | | | | | | | | | | N | 89.66 | | |
| ASU | 1 | 0.94 | CSE10007 | 0.0 | LOSS OF COMMS ON SWCS RADIO | | | | | | | | | | | | N | 89.66 | | |
| ASU | 1 | 0.94 | CSE10008 | 0.0 | NO COMMS ON SWCS RADIO | | | | | | | | | | | | N | 89.66 | | |
| ASU | 1 | 0.94 | CI020323 | 0.0 | NO COMMS ON SWCS RADIO | | | | | | | | | | | | N | 89.66 | | |
| ASU | 1 | 0.94 | CSE10009 | 0.0 | NO COMMS ON SWCS RADIO | | | | | | | | | | | | N | 89.66 | | |
| ASU | 1 | 0.94 | CSE10010 | 0.0 | NO COMMS ON SWCS RADIO | | | | | | | | | | | | N | 89.66 | | |
| ASU | 90 | 0.90 | EM010349 | 0.0 | FAULTY DISCRET OUTPUT CARD | | | | | | | | | | | | Y | 90.53 | | |
| ASU | 138 | 0.95 | CSE10030 | 0.0 | FAULTY SYNTHESIZER ON RCVR 2 | | | | | | | | | | | | N | 90.80 | | |
| ASU | 6 | 0.99 | CI01R012 | 0.0 | MISSING RED LIGHT AND PLACARD | | | | | | | | | | | | N | 91.47 | | |
| ASU | 125 | 0.97 | EM010354 | 0.8 | CORROSION CONTROL REQUIRED | | | | | | | | | | | | N | 91.99 | | |
| ASU | 45 | 0.97 | EM020394 | 0.8 | CORROSION CONTROL DOOR 2-262-2 | | | | | | | | | | | | N | 92.04 | | |
| ASU | 132 | 0.93 | CF020268 | 0.0 | XSTAB 10 POWER FAILURE | | | | | | | | | | | | N | 92.24 | | |
| ASU | 74 | 0.96 | CSE10004 | 0.0 | BIT TEST FAILURE ON USC-55 | | | | | | | | | | | | N | 92.34 | | |



Brokering

WN Details -- Webpage Dialog

https://mfom.nmci.navy.mil/VSB/Admin/modal.aspx?ctr=~/awn/awn_manage.ascx&said=1E08712B4FCD408B983285FC5E426BFD&finkey=705197&title=WN%20Details Certificate Error

WN Details - N - 20126 - USS FREEDOM - LCS 1 - EA01-2228 -

Screening Required

***CSMP Summary**
#2SSDG LOW BOOST PRESSURE

***Problem Description**
CONDITIONS FOUND FROM LCS-1 MACHINERY RELIABILITY DAILY STATUS SUMMARY REPORT INDICATE BOOST PRESURE LOW RIGHT SIDE BOOST IS LOWER THAN LEFT SIDE

***Recommended Solution**
REQUEST MAINTENANCE CONTRACT PROVIDER TO TROUBLESOOT LOW RIGHT SIDE BOOST PRESSURE, CHECK FILTER FOR REPLACEMENT AND TURBO CHARGER FOR CLENAING. SUBMIT CFR

Screen/Broker

| | | | | |
|-------------------|------------------------------|--------------------------|------------------------|----------------|
| Avail ID A0A3 | Maint Activity NSSA (NMD) | Funding Cd A | | |
| Mandays 10 | Manday Rate \$10.00 | Material Cost \$10.00 | Total Cost \$110.00 | |
| Screening Cd 1 | Type of Work Original | WN Source MFOM | Orig Screening Value | MFOM Rec Avail |

Equipment Name
DIESEL ENGINE

***EOC** 0.7 ***T/A Cd** 1 **IUC Cd** **Priority Cd** 1 **Safety Cd** 0

Alt Nr TYPc 0035 A **INSURV Nr**

CASREP DTG/Number **DFS**

Package Name ***Contact** SMOO **Rate** CIV

Comment Type Counts
DFS - 0 CASREP - 0 Lessons Learned - 0

<< First **< Prev** **Next >** **Last >>**

Internet



Repair and Restore

**Readiness
Degraded**

**Part
identifi-
ed**
**Part
ordered**



**Readiness
Restored**



**Valve
received and
issued**

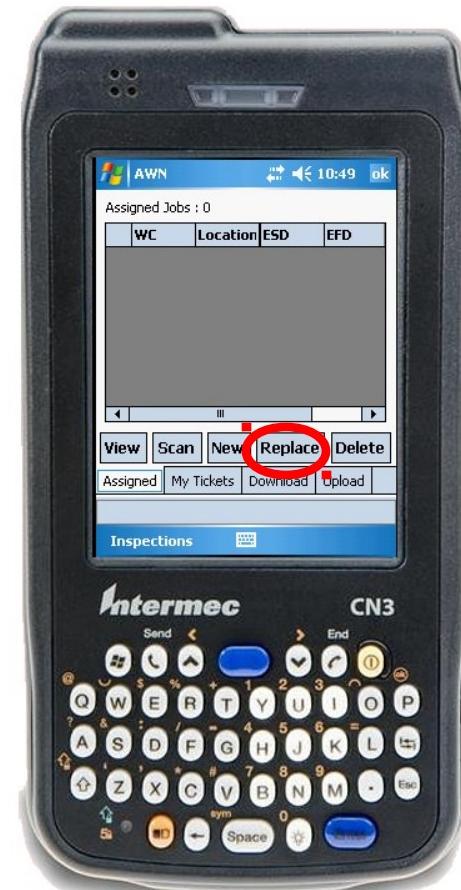
**System
Isolated**

**Part
Replaced**



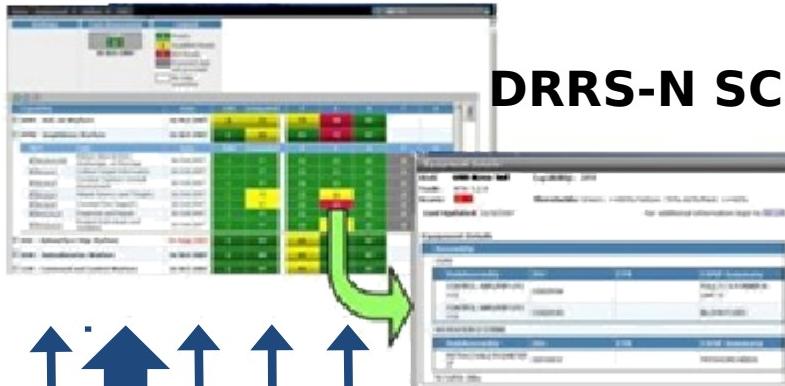
New Equipment Received

- The UII enables the item to be replaced using the handheld
- Removing the old item from the model and reporting status back to the National Registry
- Placing the new item in the model with its IUID
- The replaced part can be transferred to a repair facility or manufacturer for repair





Feeding Readiness Metrics



DRRS-N SCREENS



The equipment operability code (EOC) is reported from the ship to MFOM where algorithms are applied to determine readiness

MFOM forwards the readiness to DRRS-N with key data fields to support data mining





MFOM Scenarios

MFOM version 2.1.3
SHIP MODEL UPDATE NEWS
SECURITY LEVEL
UNCLASSIFIED

MY PROFILE : HELP DESK : FAQS : UTILITIES : SEARCH : LOGOUT : ADMINISTRATOR SCREEN

Regional Maintenance Center Tools ► Stop Light Matrix | NTA Matrix | Availability Impact | Financial

Stop Light Matrix

LCS 1 Add Column Help

| | Remove LCS 1 | Remove LCS 1 | Remove LCS 1 | Remove LCS 1 |
|---------------------|--------------|--------------|------------------|--------------|
| Select scenario | Deployment | Drug Ops | Ammo On/Off Load | Training |
| Select Availability | current | current | current | current |
| mFOM value | 0.53 | 0.53 | 0.53 | 0.53 |
| AAW | 0.55 | 0.55 | 0.55 | 0.55 |
| AMW | 0.46 | 0.46 | 0.46 | 0.46 |
| ASU | 0.55 | 0.55 | 0.55 | 0.55 |
| ASW | 0.47 | 0.47 | 0.47 | 0.47 |
| BMD | 0.57 | 0.57 | 0.57 | 0.57 |
| C2W | 0.61 | 0.61 | 0.61 | 0.61 |
| CCC | 0.57 | 0.57 | 0.57 | 0.57 |
| FSO | 0.54 | 0.54 | 0.54 | 0.54 |
| INT | 0.57 | 0.57 | 0.57 | 0.57 |
| MIW | 0.45 | 0.45 | 0.45 | 0.45 |
| MOB | 0.46 | 0.46 | 0.46 | 0.46 |
| NCO | 0.55 | 0.55 | 0.55 | 0.55 |
| STW | 0.51 | 0.51 | 0.51 | 0.51 |

Developed by
NSWC Corona Division

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Same ship portrays different readiness for different missions

Different ships can be displayed at the same time

Readiness requirements are set by TYCOMs

Readiness change can be changed by selecting an item



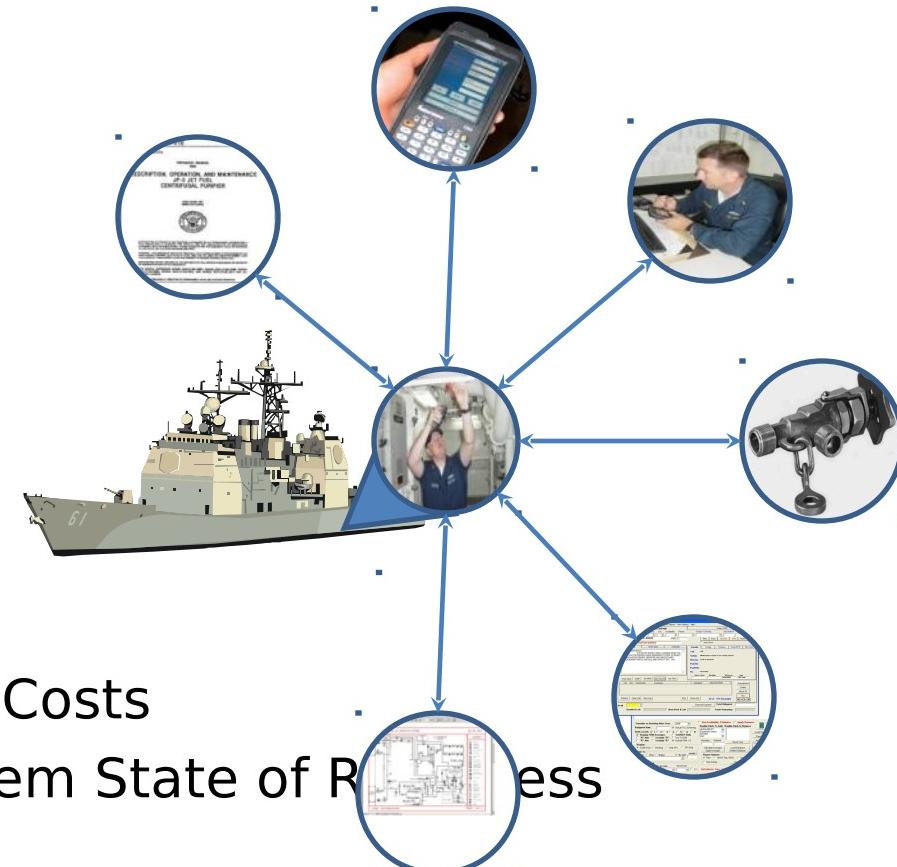
IUID Improves Readiness Reporting

- Identifies more closely the item that is deficient thereby more accurately reporting maintenance problems and their impact on readiness
- Reduces the number of mis-ordered parts
- Allows material history to be maintained for the life of the item
- Allows specific items that are “lemons” to be purged from the system thereby reducing maintenance costs in the long run



Additional Benefits of IUID

- Links User to Information
 - Warranties and/or Lease information
 - Logistics
 - Technical Manuals and Drawings
 - Parts and Parts Availability
 - Supply
 - Work Packages/Procedures
 - Material History
 - Material Reliability
 - Component Life Cycle
 - Readiness
 - Material Condition
 - Maintenance
 - Records
 - Procedures
 - PMS Cards
- Reduction in Total Ownership Costs
- Keeps track of Rotable Pool Item State of Readiness





The Plan

- Initiate full rollout in May 2011
 - Opportunistic Marking
 - Most common maintenance items marked during 1st yr
 - Remainder of equipment marked over next 2 yrs
- Implement with Navy Application Server Software releases
 - NIAPS 2.4 Planned for wk of 7 Feb 2011 (mail out)
 - Expect to be on 105 ships by July 2011



POA&M for IUID Way Ahead

- Base
 - Purchase Hardware 01/31/11
 - 1st Hardware delivery 02/28/11
 - Handheld Certified 02/25/11
 - 1st Training conducted 03/04/11
 - Commence Rollout with Software 03/07/11
 - 105 Ships 07/29/11



DIETS

FOUR

UNCLASS

DON IUID Enterprise Training Symposium 4



UNCLASS



Functional Index Number

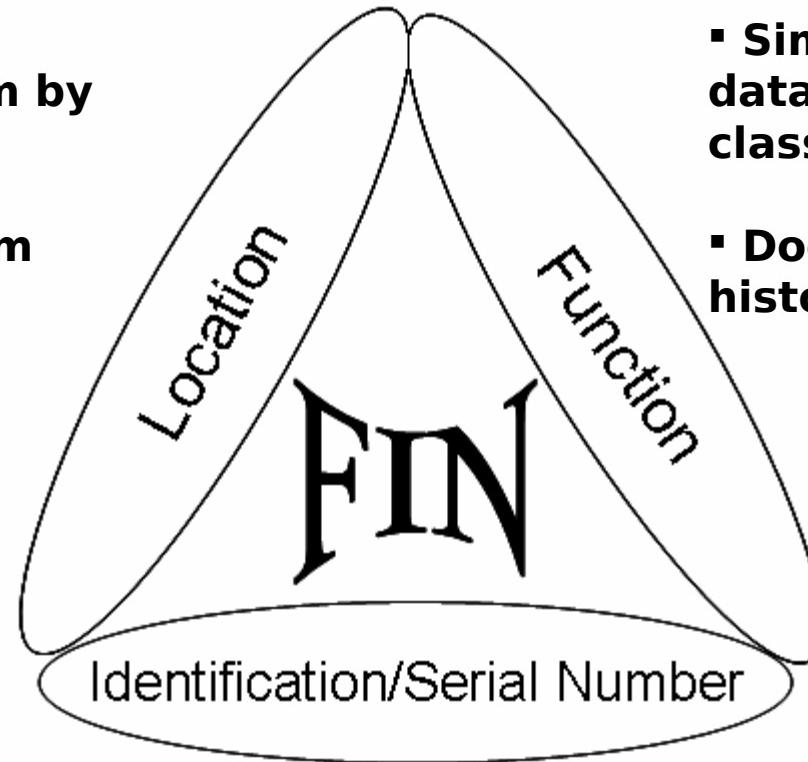
(Location)(Function)(ID)

Functional Index Number (FIN):

An alpha/numeric value assigned to all items in the model.

- Uniquely identifies every shipboard item by function
- Identifies same item across ship classes

Location:
Compartment Number,
Compartment Name, or XYZ Coordinates



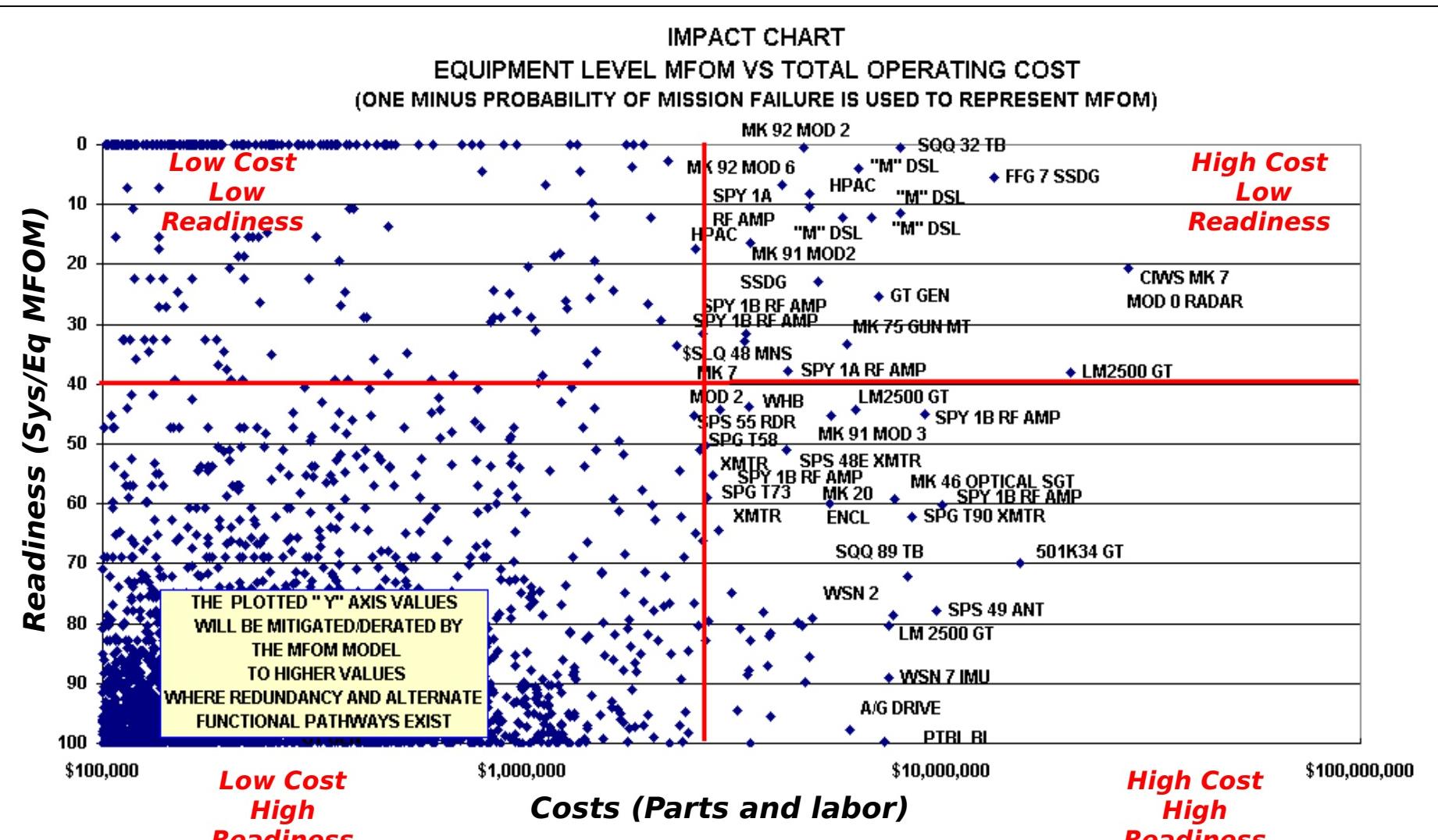
- Simplifies retrieving data across ship classes
- Documents material history

Function:
Defines the operational contribution, action, purpose or activity of an object.

Identification/Serial Number:
Applies an Item Unique Identifier to an object.
Can be composed of an IUID or Material Identification Number.



Facilitates Data Analysis





Deployment Readiness

MFOM version 2.2
RIGHT MAINTENANCE. RIGHT TIME. RIGHT COST.

SHIP MODEL UPDATE NEWS SECURITY LEVEL
UNCLASSIFIED

MY PROFILE : HELP DESK : FAQS : UTILITIES : SEARCH : LOGOUT : ADMINISTRATOR SCREEN

x/xx/xxxx

Regional Maintenance Center Tools ▶ Static : Dynamic : NTA Matrices | Availability Impact | Financial

Static Index Matrix

Printer Friendly

Scenario: **Deployment**

| | MFOM | ASU | C2W | CCC | FSO | INT | LOG | MIW | MOB | NCO |
|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| MCM 1 | 0.93 | 0.92 | 1.00 | 0.97 | 0.99 | 0.99 | 0.97 | 0.64 | 0.89 | 1.00 |
| MCM 10 | 0.71 | 0.73 | 0.84 | 0.71 | 0.77 | 0.95 | 0.98 | 0.10 | 0.27 | 1.00 |
| MCM 11 | 0.83 | 0.92 | 0.91 | 0.82 | 0.94 | 0.91 | 1.00 | 0.23 | 0.74 | 1.00 |
| MCM 12 | 0.93 | 0.99 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.45 | 0.92 | 1.00 |
| MCM 13 | 0.92 | 0.98 | 0.99 | 0.89 | 1.00 | 1.00 | 1.00 | 0.65 | 0.73 | 1.00 |
| MCM 14 | 0.86 | 0.90 | 0.92 | 0.89 | 0.89 | 1.00 | 0.97 | 0.50 | 0.73 | 0.99 |
| MCM 2 | 0.86 | 0.93 | 0.94 | 0.94 | 0.92 | 0.97 | 0.93 | 0.40 | 0.72 | 1.00 |
| MCM 3 | 0.72 | 0.89 | 0.94 | 0.96 | 0.76 | 0.99 | 0.95 | 0.00 | 0.00 | 0.99 |
| MCM 4 | 0.88 | 0.95 | 0.96 | 0.99 | 1.00 | 0.99 | 1.00 | 0.44 | 0.62 | 1.00 |
| MCM 5 | 1.00 |
| MCM 6 | 0.62 | 0.84 | 0.63 | 0.44 | 0.81 | 0.94 | 0.89 | 0.00 | 0.00 | 0.98 |
| MCM 7 | 1.00 |
| MCM 8 | 0.82 | 0.90 | 0.96 | 0.85 | 0.97 | 0.99 | 0.98 | 0.17 | 0.50 | 1.00 |
| MCM 9 | 0.72 | 0.88 | 0.93 | 0.88 | 0.91 | 0.98 | 0.90 | 0.00 | 0.00 | 0.98 |

Set Default Developed by
NSWC Corona Division

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MFOM IUID Interfaces

